DE1657

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE MATTER OF:	KIM et al
SERIAL NO:	10/553,647
FILED:	October 14, 2005
TITLE:	RESIN COMPOSITION FOR MOLD USED IN FORMING MICROPATTERN, AND...
GROUP:	4151
CONFIRMATION NO:	5573
EXAMINER:	Ryan M. Ochylski

RESPONSE

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

OK TO ENTER: /T.T./ (07/01/2009)

SIR:

This is in response to the outstanding office communication dated April 24, 2009. Applicant respectfully requests that any insufficient fees be deducted from our deposit account 504581.

In the subject application, claims 9-11 have been withdrawn from consideration leaving claims 1-8 as currently pending. The outstanding office communication is a final rejection based upon Audsley et al (USP 4,929,403) which is a new reference not earlier cited. Nevertheless, the following remarks are presented for the Examiner's consideration with the expectation that the final rejection will be withdrawn and the application allowed.

REMARKS

The rejection of claims 1-8 under 35 USC 103(a) as being unpatentable over Audsley et al (USP 4,929,403) is respectfully traversed. The reference Audsley et al is a newly cited reference which was not presented earlier.

The Examiner has cited the Audsley reference as teaching a mold used to cast duplicate reproductions of an object. Audsley teaches in Col. 12, lines 33-44 that an example of materials that can be molded includes curable or polymeric materials such as two-part silicones etc. Using a two-part silicone material for casting in the process taught by Audsley relates to the use of two-part materials which must be mixed immediately before the mold is made as explained in the Background of the Invention, Col., 1, lines 26-41 and has no relevance to the subject invention. Audsley discloses using urethane, acrylics and silicones in Col. 12, lines 33 to 44 as indicated by the Examiner for forming two-part molding materials such as two-part urethanes, two-part acrylics or two-part silicones and not as a teaching for forming a fluid molding composition comprising a urethane based oligomer as set forth in paragraph (a) and (b) of claim 1 with an additive of a silicone or fluorine containing compound corresponding to compound (c). The silicone containing compound of (c) is an additive in the claimed resin composition of (a) and (b). No relationship exists between the use of two-part materials for casting or molding as taught in Audsley and the subject invention which does not use a two-part material.

Audsley also teaches in Col. 3, lines 42-44 using a fluid molding composition which preferably comprises at least 1 thixotrope, such as fumed silica. However, it is

well known to those skilled in the art that "silica" is chemically different from silicone and that "fumed silica" is not a silicone containing compound. Moreover, Audsley explicitly describes using a "thixotrope" such as "fumed silica" for use in the fluid molding composition. It is also well known to those skilled in the art that a "thixotrope" is a thickening agent. In contrast, the organic mold of the subject invention as set forth in claim 1 requires an additive as recited in paragraph (C) which is a silicone or flourine containing compound for use as a "release agent" for "lifting off the organic mold having a reverse pattern face to that of the master mold" as is described in the application on page 3, lines 19-20 and in the preamble of claim 1. Moreover, as explained in our previous response relative to the reference Tamura, which is also applicable to the current reference Audsley, claim 1 of the subject invention, requires the organic mold to have a pattern face which is the reverse of the pattern face of the micro patterns for transferring the micro patterns to a substrate. This is not taught in Audsley. Compound (c) in claim 1 is necessary for the micro patterns to be easily and repeatedly lifted off the substrate. In this regard, the silicone or fluorine containing compound in claim 1 acts as a release agent for imparting a good releasing property. A thixotrope is completely different from a release agent and does not provide this function.

Accordingly, not only does Audsley fail to disclose or teach an organic mold fabricated from a resin composition for use in transferring micro patterns to a substrate having a reverse pattern face of the micro patterns as called for in claim 1 but makes no reference to the addition of a silicone or fluorine containing compound so that the organic mold can be easily and repeatedly lifted off the substrate without sticking or generating defects as taught in the subject specification on page 2, lines 15-19 and on

page 4, lines 27-29. Moreover, claim 1 requires a weight relationship in a given proportion to accomplish the above which has no relationship to the fluid molding composition teaching in Audsley using fluid silica as a thixotrope.

The Examiner's statement that "silicones are effective release agents" is irrelevant to the teaching of Audsley which makes no reference to the use of a release agent and instead teaches the use of a thixotrope such as fumed silica for an entirely different purpose. Accordingly, the remark of the Examiner that adding silicones into the composition for separating the mold is based upon the teaching of applicant and not on the teaching of Audsley.

For all of the above reasons, claim 1 is clearly patentable over Audsley and the rejection based upon Audsley should be withdrawn.

Claims 2-8, depend from claim 1 and are therefore believed patentable for the same reasons as given above.

In view of the fact that Audsley is a newly cited reference which applicant believes has been misinterpreted and does not teach the addition of a silicone or fluorine containing compound for use in transferring micro patterns to a substrate with the organic mold having a reverse pattern face to the face of the micro patterns the rejection of claims 1-8 should be withdrawn and the application allowed.

Reconsideration and allowance of claims 1-8 is respectfully solicited.

Respectfully submitted,

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MAILING CERTIFICATE

I hereby certify that this correspondence is being sent to the USPTO via EFS Web to the Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450, on 6/29/09.

By